

FIG. 1

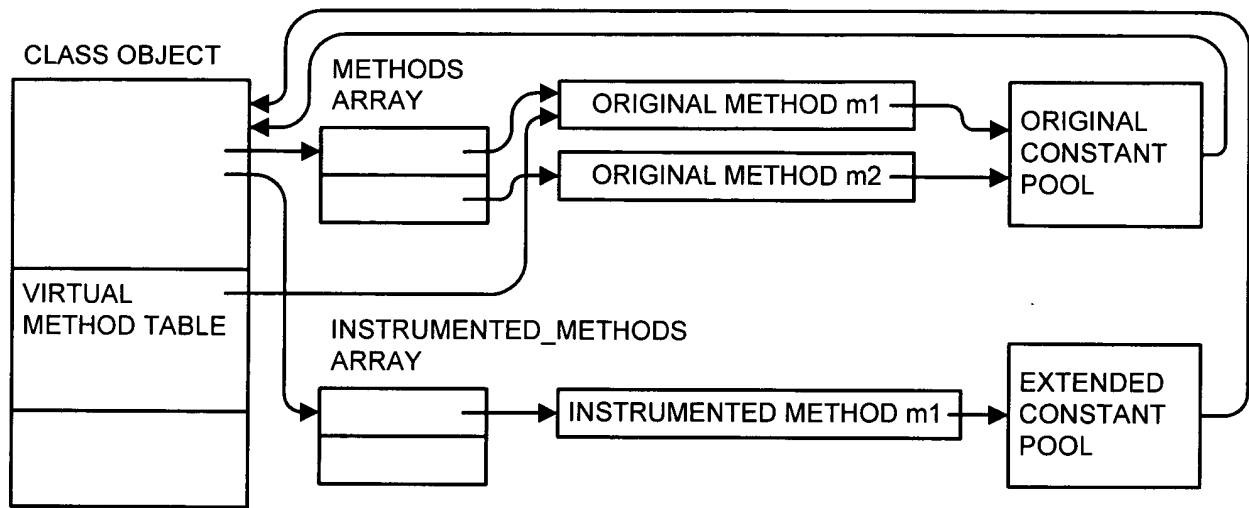


FIG. 2

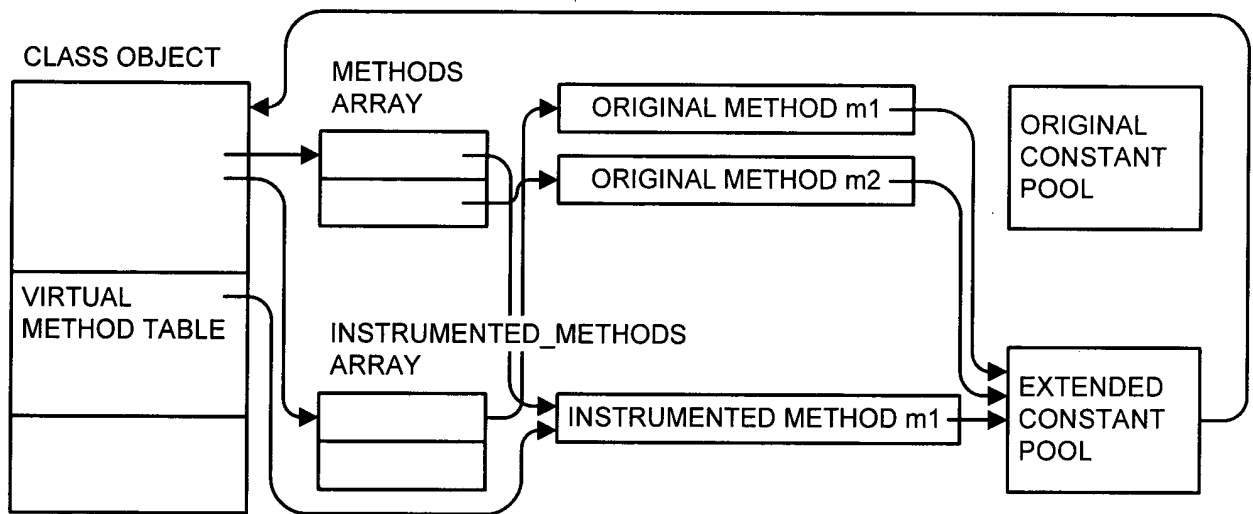


FIG. 3

```

public static void methodEntry(short methodId) {
    ThreadInfo ti = getThreadInfo(); // Get record for current thread
    if (ti != null && ti.inCallGraph) {
        if (ti.inProfilerRuntimeMethod) return; // Avoid recursive instrumentation invocation
        ti.inProfilerRuntimeMethod = true;
        ti.stackDepth++;
        ti.stack[ti.stackDepth] = methodId;
        // Push the simulated stack pointer for this thread
        // Set the simulated stack method invocation

        // ... Obtain current time and record the "method entry" event

        ti.inProfilingRuntimeMethod = false;
    } else if (methodId == rootMethodId) { // Entered root method from outside this call graph
        ti.inProfilerRuntimeMethod = true;
        if (ti == null) { // This thread never entered this call graph before
            ti = ThreadInfo.newThreadInfo();
            // ... Record the new profiled thread creation event
        }
        ti.inCallGraph = true;

        // ... Perform other thread creation-related operations. Set the stack pointer.
        // ... Obtain the timestamp and record the "method entry" event
        ti.inProfilerRuntimeMethod = false;
    }
}

```

FIG. 4

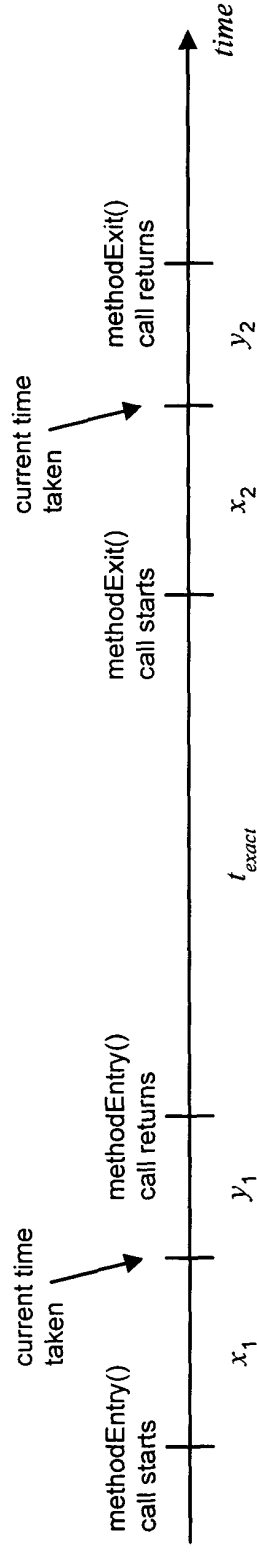


FIG. 5

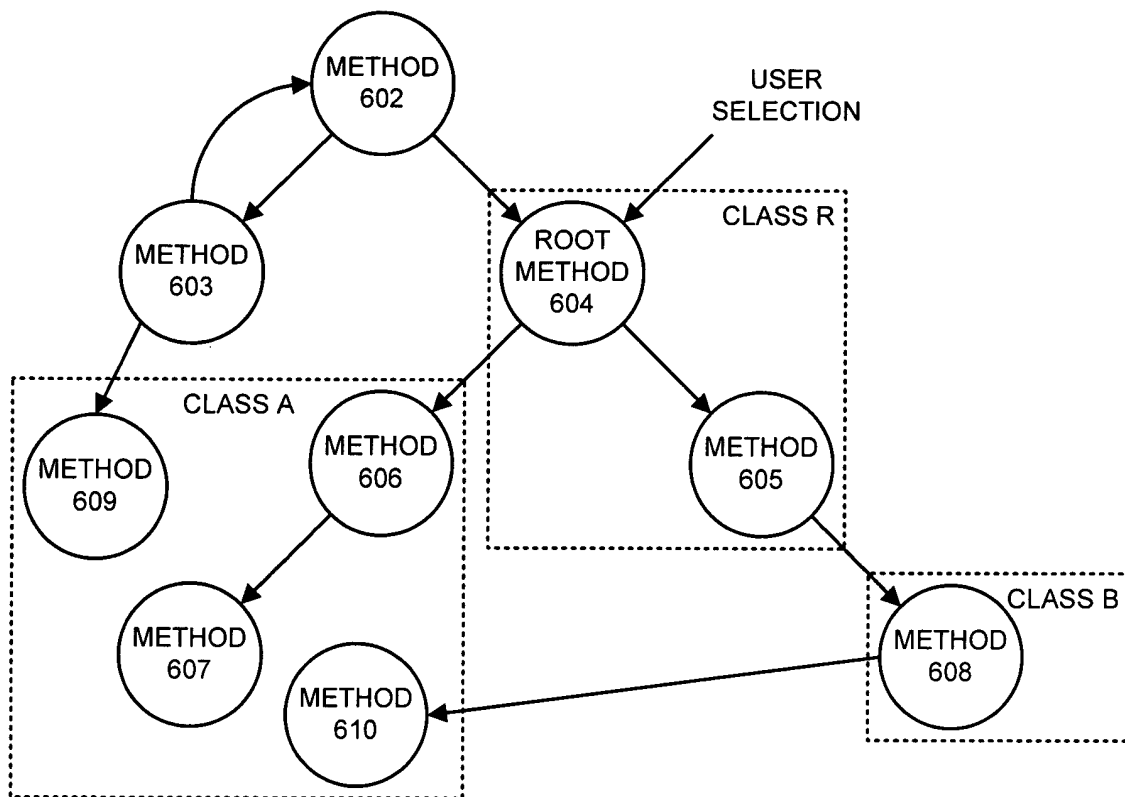


FIG. 6

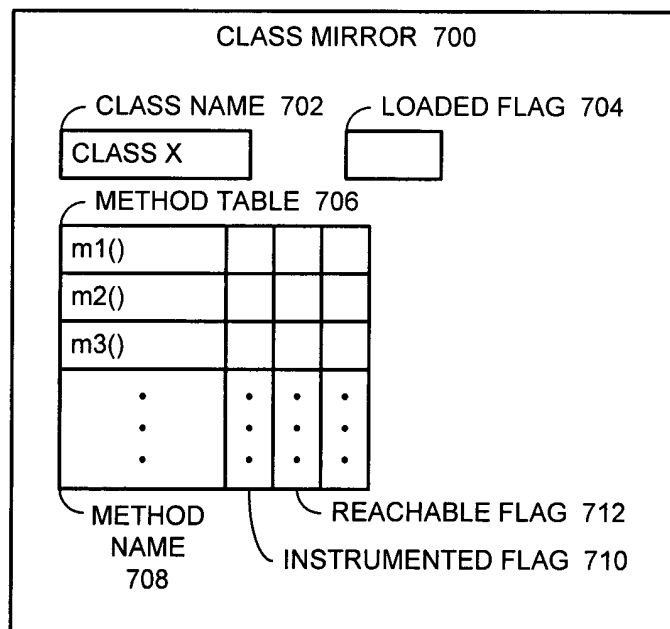


FIG. 7

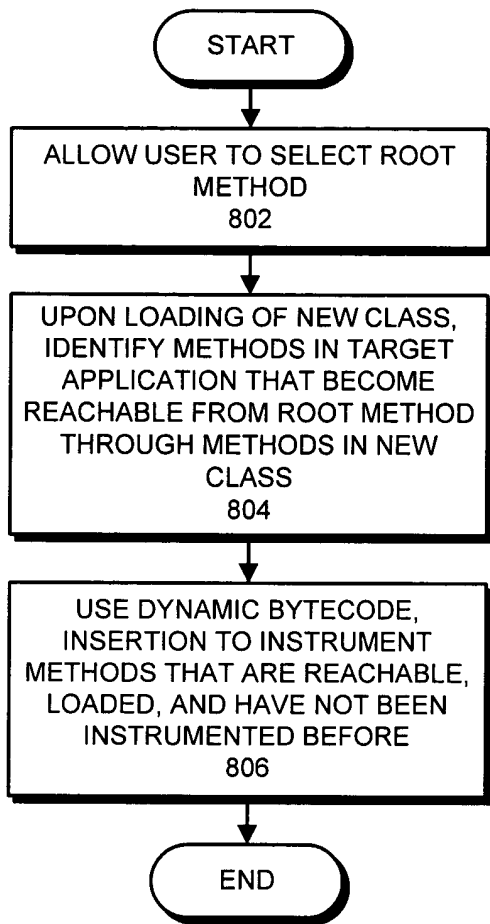


FIG. 8

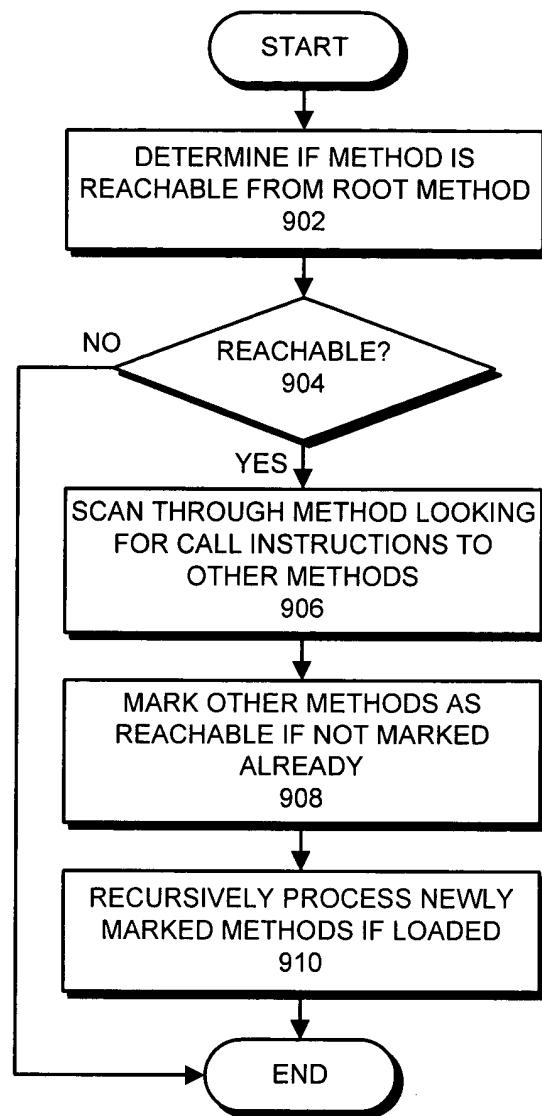


FIG. 9

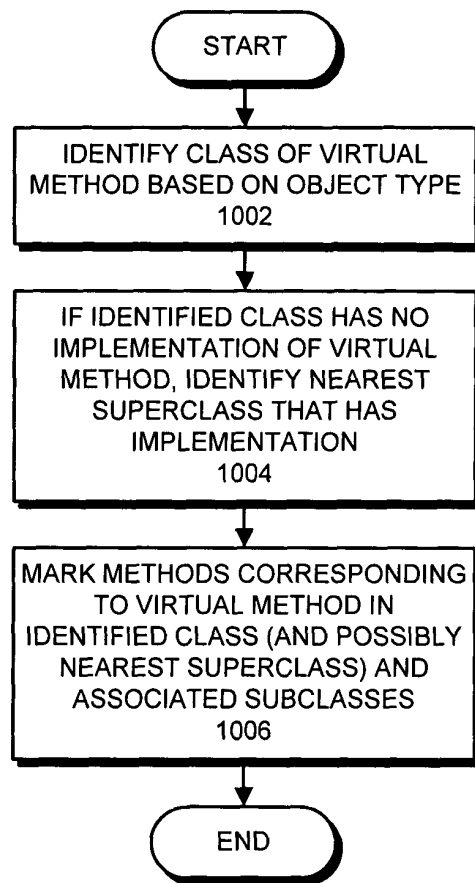


FIG. 10